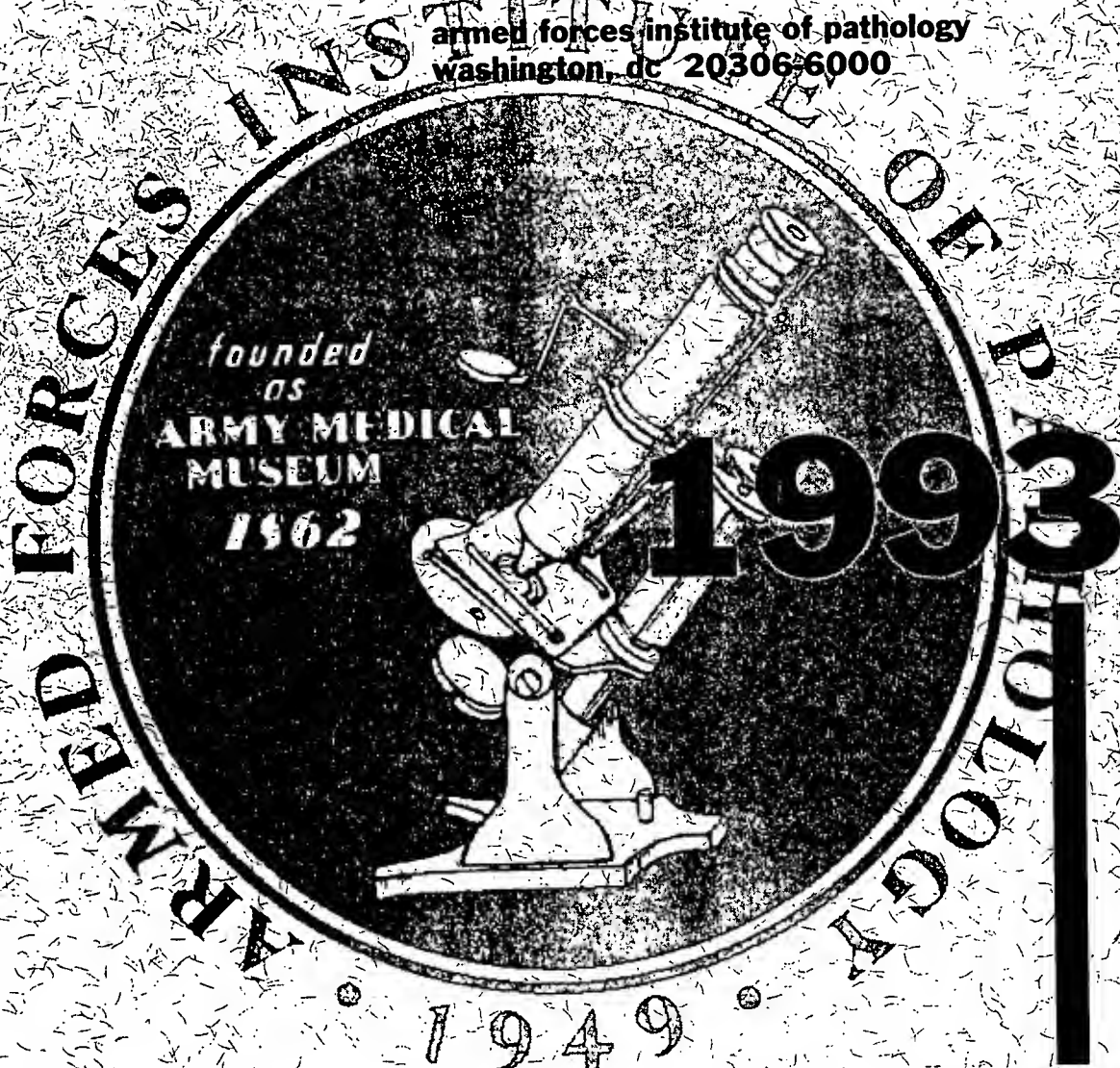


afip ANNUAL REPORT

armed forces institute of pathology
Washington, DC 20306-6000





NATIONAL MUSEUM OF HEALTH AND MEDICINE, AFIP

Marc S. Micozzi, MD, PhD
Director

OFFICE OF THE DIRECTOR

MISSION/ORGANIZATION

The Office of the Director oversees the general activities and governance of the Museum and provides policy, medical, and scientific direction. This office also directs all planning activities for the site, facility, and programs of the new museum that is planned for the National Mall. Activities handled within the office are external relations, governmental affairs, press and public relations, and institutional development. The office works with print and broadcast media, Congressional offices, and local, national, and community organizations to encourage contact and coverage of AFIP's National Museum of Health and Medicine. We seek to emphasize the Museum's focus on critical public health issues, the importance of the Museum as a bridge between biomedicine and the general public, the Museum's role in helping to recruit the health professionals of tomorrow, and the Museum's research programs in medical history, medical anthropology, the epidemiology of chronic disease, human diet and nutrition, art in medicine, and other areas. The office provides general supervision to the Division of Operations and Programs and to the Division of Resource Development.

STAFF

Dick Levinson, M.A.T., Community Relations Specialist
Theresa Strong-Johnson, Secretary
Elizabeth Videnieks, BA, Planning Coordinator

INSTITUTIONAL DEVELOPMENT

National Museum of Health and Medicine Foundation: In FY92, Congress appropriated \$500,000 to the U.S. Public Health Service to support continued planning for the new museum facility. The National Museum of Health and Medicine Foundation continued its support of efforts to revitalize and relocate the public education and exhibition facility of the National Museum of Health and Medicine. A portion of those funds was used in 1993 to develop and install additional prototype exhibits about the human body in the Museum's current facility.

An implementation plan to help guide the Museum's internal organizational growth through the opening of the new facility also was completed in 1993. A structural survey of the preferred site for the new facility (the east plaza at the Hubert Humphrey Building and surrounding land), jointly funded by AFIP and HHS and completed by the General Services Administration, determined that it will be possible to construct a 60,000-sq ft facility there.

Foundation trustee Arnold Langbo, chairman, president, and CEO of Kellogg, pledged \$1 million to the foundation for a major nutrition program and exhibition, as well as promising his

personal time and effort to raise an additional \$4 million from colleagues in the food industry. Kellogg agreed that the first \$100,000 of their gift would support Initial exhibit planning as well as provide partial funding for a Development Office for the Foundation. Recruitment for that position was underway at the end of the year.

The change of administrations, in January 1993, caused foundation trustees to spend a number of months waiting for appointments to be made and then several more for appointments to introduce the Museum project to the new leadership at DoD and HHS. Because securing the site is critical to private sector fundraising, by fall a decision was made to pursue legislation designating the preferred site for the new facility rather than seeking all-encompassing legislation detailing governance and operation of the new facility. Funding for design competition, identified by GSA as the next step, was sought through DoD's Legacy Resource Management Program.

Museum staff and foundation trustees noted with sadness the death of trustee Theodore Cooper, president and CEO of Upjohn. Dr. Cooper had provided significant and critical initial financial support for the foundation.

National AIDS Exhibit Consortium/National Health Sciences Consortium: Dr. Micozzi completed a 2-year term as the founding president of the National AIDS Exhibit Consortium. The consortium produced three copies of a traveling exhibit on AIDS that will tour throughout the United States, state-of-the-art interactive education programs to be used in informal educational settings, and a design package for major permanent AIDS exhibit installations at large venues. The NMHM provided evaluation of an AIDS education outreach program to reach high-risk youth in the Baltimore-Washington area and training to museum educators at consortium member institutions and host venues for the traveling AIDS exhibit.

In addition, Dr. Micozzi helped lead the transition of the National AIDS Consortium into the National Health Sciences Consortium. The new consortium received funding through the Office of Womens Health Research, National Institutes of Health, to plan a comprehensive national public education program on womens health.

Intersociety Pathology Council: Briefings and organizational meetings were held with the Intersociety Pathology Council, the American Society of Clinical Pathology, the College of American Pathology, and member organizations regarding support and involvement in the creation of exhibits on the human body as the centerpiece of the museum facility planned for the National Mall in 1998.

Collaboration With German Museums: The office coordinated the visit of Dr. Martin Roth, director of the Deutsches Hygiene-Museum in Dresden. (A visit to the Museum had been suggested to Dr. Roth by Ms. Mary Jo Deering, of the Office of Disease Prevention and Health Promotion, Department of Health and Human Services.) Dr. Roth met with Dr. Micozzi to discuss possible collaborations on future exhibits and resolved to seek help from the Goethe Institut concerning their trans-Atlantic partnership. A tour of the Museum and an informal meeting with the Museum staff also were part of Dr. Roth's visit.

Goethe Institut: The Museum and the Goethe Institut are eager to continue their collaboration. This relationship began in 1992 with the installation at the Museum of "The Value of the Human Being: Medicine in Germany, 1918-1945," a traveling exhibit that received national attention. During meetings in 1993 between the director of the Goethe Institut and senior Museum staff, a number of possible joint projects were discussed for future years.

COMMUNITY AND PUBLIC RELATIONS

Charlene Drew Jarvis Science Awards: The fourth annual presentation of the Charlene Drew

Jarvis Science Awards took place in June. This program recognizes talented science and math students at all levels of the District of Columbia's public schools. The award ceremony at the Museum enables these young people to explore the possibilities of careers in the health sciences.

Medical News Network: Medical News Network (MNN), founded by Whittle Communications, creator of the in-school broadcast network "Channel One," beams news and information features to doctors in their offices. Physicians receive CME credit for viewing these reports. As part of this service, MNN has decided to produce a series of features on medical history. The pilot for this series was shot at the Museum in August. This segment describes the medical response to the shooting of President Lincoln in 1865. It includes an interview with Dr. Micozzi and footage of the exhibit "The Patient is Abraham Lincoln." This report is scheduled to air in February 1994, and we anticipate that the Museum will be involved in several forthcoming segments.

American Medical Writers Association: Dr. Micozzi served as the keynote speaker at the association's national convention in Atlanta in October, speaking on the topic "The Patient is Abraham Lincoln."

PROGRAM SUPPORT

The office provided support to several special programs held at the Museum this past year. These included cooperating with other governmental agencies, as well as collaborative ventures with private sector organizations, and working with both the AFIP Public Information Office and WRAMC's newspaper, *The Stripe*, to feature articles on the Museum.

In October, the office assisted in the planning of a dinner and lecture in association with the AIDS History Group of the National Institutes of Health. During the evening, the National AIDS Coordinator, Kristine Gebbie, toured the Museum and was briefed on the Museum's continuing local and national role in the effort to protect the public against the spread of HIV.

Support was provided in coordinating Smithsonian Resident Associate Programs held at the Museum in May and October. Media organizations that printed or broadcast stories about these programs included The Washington Post, the Associated Press, American Medical News, Tribune Broadcasting, Post-Newsweek Stations, WUSA-Channel 9, WMAL AM and WTOP AM.

The office assisted in the implementation and media relations associated with a 4-day conference on alternative medical research and practices. This event was cosponsored with NIH's Office of Alternative Medicine, the United States Botanical Garden, and the Wellness Coalition. Media coverage appeared in The Washington Post, USA Today, and elsewhere.

MEDIA RELATIONS

Among the journalists, broadcasters, free-lance writers, and reviewers assisted in 1993 were: Ted Duncombe and Paul Recer of the Associated Press, David Brown and Eric Brace of The Washington Post, Wayne Hearn and Rebecca Volmer of American Medical News, Bernard Little of The Stripe (WRAMC), Kristen Lippert-Martin of Time Magazine, Suzanne Harper of the Dallas Morning News, Leslie Miller of USA Today, Jackie Benson of Fox Morning News, Bonnie Wallace of Science Update Radio, Julie Wakefield of U.S. Medicine, Christina Yim of Health, Buzz McClain of Army Times, Nicole Devito of the Pentagon, Lawrence Hott of Florentine Films, Bob Althage of WUSA-TV, Alan Green and Rex Weil of City Paper, Greg Palmer of Palmer-Fenster Productions, Sarah Clarke of Cronkite-Ward, free-lance and Washingtonian Magazine writer Rachel O'Hare, John Barrat of the Smithsonian Public Affairs Office, the Providence Journal, and the Los Angeles Daily Journal.

Several film crews also received assistance from the office during the year. These included programs on Abraham Lincoln, the Civil War, and tuberculosis.

PUBLICATIONS

1. Micozzi M, Weedn VW, Fisher D. Testing Lincoln's DNA. *American Academy of Forensic Sciences Abstracts*, 45th Annual Meeting, Boston, Mass; 1993:15.
2. Sledzik PS, Willcox A, Micozzi MS. Autopsied, embalmed, and preserved human remains: distinguishing features in forensic and historic contexts. *American Academy of Forensic Sciences Abstracts*, 45th Annual Meeting, Boston, Mass; 1993:34.
3. Mellen DF, Roby RK, Weedn VW, Sledzik PS, Micozzi MS. DNA analysis of spontaneously preserved tissues: adipocere and mummification. *American Academy of Forensic Sciences Abstracts*, 45th Annual Meeting, Boston, Mass; 1993:25.
4. Mellen DF, Lowry M, Micozzi MS. Experimental observations on adipocere formation. *J Forensic Sci*. 1993;38:91-93.
5. Micozzi MS. Il Caso del Presidente Abramo Lincoln. *Kos: Rivista di scienza e etica*. 1993;92:21-29.
6. Micozzi MS. Functional consequences from varying patterns of growth and maturation during adolescence. *Horm Res*. 1993;39(suppl 3):49-58.
7. Micozzi MS. Evaluation of carotenoid intake. In: Packer L, ed. *Carotenoids: Methods in Enzymology*. Orlando, Fla: Academic Press; 1993;214:17-21.
8. Micozzi MS. Postmortem change. In: Wecht C, ed. *Handbook of Forensic Sciences*. New York, NY: Matthew Bender; 1993.
9. Micozzi MS. National health care: medicine in Germany, 1918-1945. In: Sennholz HF, ed. *Politicized Medicine*. Irvington-on-Hudson, NY: Foundation for Economic Education Inc; 1993:94-101.
10. Micozzi MS. Cancer Screening. *Am J of Hum Biol*. 1993;5(1):119. Book review.
11. Micozzi MS. Medicine Betrayed: the Participation of Doctors in Human Rights Abuses. *N Engl J Med*. 1993;328:1430-1431. Book review.
12. Micozzi MS. *Forensic anthropology*. McGraw-Hill Yearbook of Science and Technology. New York, NY: McGraw-Hill; 1993:148-149.
13. Micozzi MS. Plant flavonoids: can they heal us? *Executive Health's Good Health Report*. 1993;29:4.
14. Micozzi MS. The nation's health and the patient's health: medicine in Germany, 1918-1945. *The Freeman: Ideas on Liberty*. 1993;43(11):416-420.

DIVISION OF OPERATIONS AND PROGRAMS

MISSION/ORGANIZATION

The division directs and coordinates operational components of the Museum. This includes administration, exhibitions and interpretation, public programs, facilities use and related activities. In addition, the division supervises the activities of the Collections Management Division and the Otis Historical Archives.

STAFF

Robert I. Goler, MA, Chief and Executive Administrator
 Sarah Carey, BFA, Exhibits Specialist
 Laurie Carroll, BS, Museum Specialist
 Jeanne Levin, BS, Tour Program Coordinator
 Rosa McCoy, Secretary
 Orla O'Reilly, BA, Public Program Coordinator

Security Guards (contract): Shawn Clark, Zelda Hughes, and Michael Thomas

Volunteers (docents): Edward Beeman, MD, Nancy Bretz, Merlin Brubaker, MD, Donald Chalkley, PhD, James J. DePersis, Helen Farrar, Jason Geiger, MD, Barbara Holts, Lucie Humphrey, Regina Hunt, Albert Jacobs, Octavio Johnson, Pat Netzer, Mary Pladgett, Sol Pargament, Colleen Pettis, Anne Pollin, Edward Rea, MD, Nancy Roberts, Stacy Rollins Jr, MD, Enid Rosen, George Sharpe, MD, Karen Simon, Inez Turner, and Rose Zimmerman

Volunteers (general): Andrea Batiste, Amy Berke, Louise Brown, Valerie Brown, Fred Chiles, Nancy Claypool, Melissa Flaim, Erika Lee, Margie Steadham, Tanya Thornton, and Timothy Young

VISITOR SERVICES

Overall 1993 attendance at the Museum was 56,803, reflecting a long-term success in attracting visitors to the Walter Reed Army Medical Center. Over the past 4 years annual Museum attendance has grown steadily and is currently double that of 1990. While 1993 attendance was lower than attendance for 1992, a phenomenon that was experienced at museums nationwide, it continues a general trend of increasing visitation in recent years. This is consistent with the efforts to increase awareness of the Museum in professional communities and the general public. Several initiatives are underway to increase visitation beyond the current level. These initiatives are expected to produce additional results in the coming years.

Attendance can be categorized into three groups: general admission, tours, and special events. Significant efforts currently are underway to obtain a more detailed demographic analysis of these visitors in order to assess potential markets for increasing future Museum attendance. Some important trends were evident in 1993 and will be incorporated into planning for future years. First, the size of tour groups is increasing, with the average group size increased by 4.3 people over the average size of last year, to an average size of 34.2. Second, those participating in special events rose dramatically.

CATEGORY	NUMBER	COMPARISON TO PREVIOUS YEAR	FOUR-YEAR TREND 1990-1993
General Attendance	38,379	-22.0%	+13.3%
Tours	6,571	-2.6 %	+12.0%
Special Events	11,853	+39.4%	+69.9%
TOTAL	56,803	-11.8%	+21.6%

EXHIBITIONS

The Museum installed two temporary exhibitions in 1993, in concert with a long-term goal of establishing a temporary changing exhibition program. From May to September, "The Fifth National Art Exhibition by the Mentally Ill" was on view. This included 43 works. Museum staff

organized the special exhibition "Global Responses: AIDS Posters and Printed Ephemera," which opened in November and continued through the end of the year. The works for this exhibition, 130 items from 35 different countries, were drawn from several private collections as well as the Otis Historical Archives. In an effort to make Museum exhibit projects better-known nationwide, this exhibit is expected to travel to The Cleveland Health Education Museum in 1994.

Exhibitions included the development of additional components to "The Human Body/Human Being" exhibition focussing on the endocrine, muscular-skeletal, lymphatic, and skin systems. Several staff members and a senior docent collaborated on the preparation of the script for these sections, and critical assistance was received from Lisa Dondero, MPH. Their efforts were accompanied by the development of two new interactive computer stations on endocrine and muscular-skeletal systems, through a contract administrated by the Public Health Service. These additions were evaluated by Science Learning Incorporated with funds provided through the Public Health Service. AFIP's Scientific Illustration Division assisted in the fabrication of some units, and WRAMC's Department of Engineering facilitated critical improvements to the physical space.

Efforts continued in the development of new exhibit concepts and to test emerging technologies. During 1993, work progressed toward the development of a major exhibition on the history of cancer research, in coordination with the National Cancer Institute; it is hoped that this installation will occur next year. The Museum also obtained two interactive computer stations through the National AIDS Exhibit Consortium to complement its long-term exhibition, "Living in A World With AIDS." Additional discussions were held with various professional organizations and with individuals within the medical profession to plan future projects.

PUBLIC PROGRAMS

The audience for special programs increased significantly in 1993. In total, 11,853 individuals attended these activities, constituting a 39.4% growth over the comparable number for 1992 and 69.9% over a 4-year period. Descriptions of some important programs at the Museum appear below.

Smithsonian Resident Associates Program: The Museum continued its joint programming of public events with the Smithsonian Institution with two distinct offerings during the year. In May, Mr. Sledzik and Ms. Willcox presented research findings on skeletal history. In October, a special program, entitled "Mummies and Vampires," illustrated how myths and folklore are informing anthropologists and doctors currently practicing in traditional or Third World settings. This highly successful program attracted standing-room-only audiences in Russell Auditorium; an additional presentation also was given to AFIP and ARP staff.

"Mental Illness and Creativity": To mark the temporary exhibition of art by those with mental illness, the Museum sponsored a public lecture in June by Dr. Kay Jameson, Johns Hopkins University. This program was introduced by AFIP Director, Col. Vernon W. Armbrustmacher.

Conference on Alternative Medicine: In association with the Office of Alternative Medicine (National Institutes of Health), the United States Botanical Garden, and the Wellness Coalition, the Museum mounted a 4-day conference in June. Sessions were held in the Museum and in auditoriums at AFIP, WRAIR, and WRAMC.

AIDS History Conference: On October 28, the AIDS History Group held a special dinner meeting in the Museum, in association with the NIH History Office, as part of a 2-day conference entitled "AIDS & The Public Debate: Epidemics and Their Unforeseen Consequences." Participants viewed "Global Responses," the Museum's temporary exhibit of international AIDS posters, and the long-term installation "Living in A World With AIDS." The two featured speakers were the National AIDS Coordinator, Kristine Gebbie, and Richard Goldstein, executive editor of *The Village Voice*.

World AIDS Day: To mark World AIDS Day, December 1, the Museum organized a special program about new developments in AIDS pathology, virology, and patient care. Among those speaking were Dr. Steve Johnson of WRAIR's Department of Infectious Diseases, Dr. Ann Nelson of AFIP's AIDS Registry, Colonel Scotty Lloyd from the WRAMC Chaplains Office, and Dr. Micozzi. The program was introduced by AFIP Director, Col. Vernon W. Armbrustmacher.

Museum Educators' Workshop: In November, the Museum organized a workshop on AIDS research findings and educational techniques at Philadelphia for educators and program staff from science and childrens' museums across the Nation. This program, implemented by consultants Lewis Lorton, DDS, and Lisa Dondero, MPH, under the direction of Mr. Goler, was designed to complement the traveling exhibition "What About AIDS?" The exhibition was developed at The Franklin Institute through the National AIDS Exhibits Consortium, and the national tour will be coordinated with the Association for Science and Technology Centers (ASTC). The workshop was supported with funds from the Centers for Disease Control and Prevention. A handbook that outlines the key educational and strategic issues addressed at the workshop is in preparation, and discussions are underway with ASTC to hold another training session for other institutions participating in the tour.

The Museum continues to cultivate affiliations with related professional associations. Among those holding events at the Museum in the past year were the Washington Society for the History of Medicine (annual banquet and lecture) in March and the Society for the History of Technology (tour for members attending the annual meeting in Roslyn, Va.) in October.

Museum staff assisted in the coordination and implementation of numerous professional education courses in the Museum, as well as other AFIP programs and receptions. During the past year there were 67 activities, including a 2-week course on anatomical pathology and the Sixth Ash Lecture at which Nobel Laureate James Watson spoke on the ethics of human genetic research. Staff also assisted in the use of Museum facilities for 49 events sponsored by WRAMC and community organizations.

The Museum's professional staff also provided instruction off-site during 1993. The Sixth Annual Forensic Anthropology Course was held at San Antonio and assistance was given to the Uniformed Services University of the Health Sciences (Bethesda, Md.) in teaching courses in anatomy, pathology, and ethical, legal, and social aspects of medicine. Additional information appears below.

A total of 192 formal tours of the Museum, representing 6,571 individuals, were given during the year by the docents. A 6-week training course was provided for all new docents, with material covering the anatomy, history of medicine, and communication skills, as well as specific information on the Museum's long-term and temporary exhibitions. The groups served by the docents can be divided into three similarly sized categories: school grades 5-8, school grades 9-12, and general tours (e.g., adults, seniors, bus groups). Efforts to analyze the visitation patterns of the Museum's audience were formulated in 1993 and are expected to provide important information in the next year to better anticipate visitor needs and to identify new potential audiences.

Finally, we note with sadness the death of Dr. Ralph Stiller, a retired physician who had been a dedicated docent for the Museum.

PROFESSIONAL ACTIVITIES

The Museum remained active in the promotion of disease prevention training in 1993. With support from the Centers for Disease Control and Prevention, the Museum organized a 2-day national conference on "AIDS and Museum Education" at Philadelphia, November 5-6, 1993, to complement a traveling exhibition organized by the National AIDS Exhibit Consortium. Partici-

pants from numerous museums and professional organizations attended, and a handbook of proceedings and educational materials is in production to disseminate the findings of the workshop to museums nationwide.

Departmental staff also provided professional consultations to numerous educational institutions during the year. These included participation in institutional planning efforts for the centennial of the Historical Society of Washington and the Annual Conference on Washington Area History and assistance in developing a medical history curriculum for high school students in suburban Boston, Massachusetts.

Professional development remained an important element for the staff. Staff members represented the Museum at annual meetings of the American Association of Museums, the American Association for the History of Medicine, and the Museum Computer Network. Staff were active in local professional groups, including the Mid-Atlantic Museum Computer Network, the Material Culture Symposium (Smithsonian Institution), the American History Colloquium (Smithsonian Institution), and programs sponsored by the National Library of Medicine and the Office of the Historian, Public Health Service. Mr. Goler received a tuition waiver to attend a conference on museum management sponsored by the American Law Institute/American Bar Association (Philadelphia, Pa.), and Mr. Rhode obtained a scholarship to attend a workshop on the conservation of photographs at The Getty Institute (Malibu, Calif.).

PRESENTATIONS

October 5, 1993: "Museums and Health Education," Tenth Federal Health Communicators Conference (Washington, D.C.), Robert I. Goler.

November 6, 1993: "Providing Health Information in a Museum Setting: Government Resources," Health Museum Educators' Workshop (Philadelphia, Pa.), Robert I. Goler.

PUBLICATIONS

1. Goler RI. Chicago surgical instrument makers, 1855-1899: a commentary on sources. *Caduceus*. 1993;9:99-106.
2. Goler RI, Riley C. A directory of Chicago surgical instrument makers, 1855-1899. *Caduceus*. 1993;9:107-110.

DIVISION OF COLLECTIONS MANAGEMENT

MISSION/ORGANIZATION

The mission of the Division of Collections Management is to manage, document, and make available for research the anatomical, historical, and pathological collections of the NMHM/AFIP. The Division of Collections Management comprises three sections: Anatomical Collections, Historical Collections, and the Office of the Registrar. The Anatomical section also maintains the Plastination Laboratory.

STAFF

Paul S. Sledzik, MS, Curator
Allison Webb Willcox, BA, Collections Manager
Alan Hawk, BA, Collections Manager
Donna Scorzelli Quist, BA, Registrar
Yvette LeGrande, BS, Plastination Technician

Volunteers: Marietta Pannell, Sol Pargament, Matthew Ake, Marie Dauenheimer, Markus Ring, Kelly Diane Smith, Lori Anderson, and Tobe Sylvester.

COLLECTIONS MANAGEMENT

This year, the division staff coordinated and oversaw the move of nearly 20,000 sq ft of collections, support materials, and supplies from the warehouse in Rockville, Maryland, to the newly leased Collections Management Facility in Gaithersburg, Maryland. The tasks of inventorying and cataloging continued.

INVENTORY AND CATALOGING COLLECTIONS

Computerized inventory of artifacts stored in Hammond Hall, the microscope storage area, the warehouse, and on exhibit now include 13,033 artifacts, approximately 98% of the collection. Work continued on the Civil War skeletal collection computer catalog, with nearly 80% of the collection cataloged.

The Historical Collections Computer Catalog, which differs from the inventory by containing a more detailed description of the artifact, now includes 6,834 artifacts, approximately 53% of the collection. The 1,581 items cataloged in 1993 include new accessions, previously accessioned artifacts, and artifacts going out on loan. The Historical Collections relied extensively on volunteer assistance to complete projects and data entry.

RESEARCH REQUESTS

The Historical Collections received 117 written and telephone requests in 1993. The Anatomical Collections responded to 53 written and telephone requests in 1993.

LOANS AND ACQUISITIONS

In 1993, the NMHM/AFIP acquired 73 groups of objects; a total of 223 artifacts were donated to Historical Collections in 1993. Significant additions to the collection include: a baby bird pediatric ventilator; four early electromyography machines; two of the first electromyography electrodes made by James Golseth, the founder of the specialty; the ship's bell from a U.S. Public Health Service quarantine cutter; and a uniform belonging to Leonard Scheele, the former U.S. Surgeon General.

A total of 11 loans were processed in 1993. These included materials for the loan exhibition "The Fifth National Art Exhibition by the Mentally Ill" and "Global Responses: AIDS Posters and Printed Ephemera." Historical and anatomical objects supported exhibits at the Carter House (Franklin, Ky.), the Daughters of the American Revolution Museum (Washington, D.C.), the National Library of Medicine (Bethesda, Md.), and the Medical Museum at the University of Iowa Hospital and Clinics (Iowa City, Iowa).

Individuals who donated materials to the Museum during 1993 were: Mathew Ake; Francis J. Bonner; Charles Bowyer, MD; Donald Chalkley; Michael Cherington, MD; Emma Denman; Henry Edwards, MD; Henry H. Elliott; John Field, MD; Ben Fine, MD; Bernie Friedman; James Golseth; Dan W. Habel, MD; Kenton S. Hartman, DDS; Alan Hawk; the estate of Charlotte Holt;

Eugene Hunter; Octavia Johnson; Debra King; Rev. Donald P. Lee; Dick Levinson; Mary McCarthy; Donna McCarthy; Margorie McCormick; Wendy Miller; Kevin P. Miller; Milton Moss; Donna Munoz; Museo Arqueologico Rafael Larco Herrera; National Anthropological Archives; Naval Medical Center Laboratory Department Autopsies; Adrienne Noe; Elizabeth Osborne; Raymond Osbrum, MD; Sol Parquament; Henry Ponton; Michael Rhode; Mrs. Leonard Scheele; State of Maryland Anatomy Board; COL J. Thomas Stocker, MD; Cindy J. Swearman; TCM Supply Corp; U.S. Army Center for Military History; Melessia Van Wey; Eleanora T. Velenousky; Allison Wilcox; Wilmac Corp; Gloria Y'Edynak; Yale University; Zila Pharmaceuticals; and Rose Zimmerman.

The following AFIP departments transferred collection materials to the Museum: Logistics, Cellular Pathology, Records and Repository, and Veterinary Pathology. Additional materials were received from the Photography Division, Walter Reed Army Institute of Research, and the Television Branch and Cardiothoracic Services Department, Walter Reed Army Medical Center.

REPATRIATION

The passage of Public Law 101-601, the Native American Graves Protection and Repatriation Act (NAGPRA), requires that all federally funded museums contact the Native American tribes for which they hold skeletal specimens and objects of cultural patrimony, burial artifacts, and religious artifacts. The Historical and Anatomical Divisions have been complying fully with this law. Seven crania were deaccessioned to the National Museum of Natural History, Smithsonian Institution (NMNH/SI), under an agreement that allows the NMHM/AFIP to give skeletal material to the NMNH/SI for repatriation and transfer to appropriate tribes.

NAGPRA also set November 16, 1993, as a deadline for notifying Native American tribes of Native American artifacts belonging museums. The law required the NMHM/AFIP to notify each tribe for which it held objects of cultural patrimony, burial artifacts, and religious objects. Objects covered by the act must be repatriated at the request of the tribe. Historical Collections contains 43 objects of Native American origin, only 8 of which might be covered under the act. Sixteen Native American organizations were notified about objects in the Museum's collection; by year's end, four responses had been received.

PROFESSIONAL ACTIVITIES

In addition to responsibilities involving collections management, the staff of the Division of Collections Management participated in educational activities, professional meetings, public lectures, and forensic anthropological projects, and support of the Office of the Armed Forces Medical Examiner (OAFME), AFIP.

Education: The Sixth Annual NMHM/AFIP Forensic Anthropology Course was held at the Maxwell Museum of Anthropology in Albuquerque, New Mexico, in June. The course was the largest in terms of participants and faculty to date and received outstanding evaluations.

Dr. Micozzi and Mr. Sledzik were faculty members for the first "Curso Taller Sobre Analisis Forense de Los Restos Oseos Humanos (Forensic Anthropology)," sponsored by the Instituto Nacional de Antropologia e Historia and Universidad Nacional Autonoma de Mexico, and held in Mexico City in November of 1993. The course was organized by Dr. Frank Saul, a member of the AFIP Scientific Advisory Board, and was based on the NMHM/AFIP Forensic Anthropology Course.

Scientific Research Communications: Mr. Sledzik participated in an NSF-funded conference entitled "History of Health and Nutrition in the Western Hemisphere" at Ohio State University. The project, which is now in the data collection and initial research phase, will examine the

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health status of skeletal populations in the western hemisphere. Mr. Sledzik's work will focus on military skeletal samples from the 18th and 19th centuries.

Forensic Anthropology Support: The Museum, represented by Laurie Carroll, Mr. Sledzik, and Allison Willcox, was asked by the National Disaster Medical System of the Federal Emergency Management Agency to coordinate and conduct the anthropological analysis and identification effort for over 300 human remains from a flooded cemetery in Hardin, Missouri.

Mr. Sledzik and Ms. Willcox, working with OAFME pathologists, were asked to reanalyze the cervical vertebrae of John Wilkes Booth housed in the NMHM/AFIP. This request was made by the editor of the journal *Navy Medicine*, and the analysis was published as volume 84 (1993), number 1, of that journal. Other individual cases from foreign countries, including Norway, were handled in association with OAFME.

Plastination Laboratory: In 1993, the Plastination Laboratory continued to plastinate material for exhibit, for loan, and on contract. USUHS awarded \$4,000 to the laboratory for plastination of specimens for the Department of Pathology. The Department of Anesthesiology of Hartford Hospital, Conn., and USUHS collaborated with Yvette LeGrande on a project to plastinate specimens of cross-sectional anatomy to teach anesthetic techniques. These specimens will be used in the production of atlas of regional anesthetic techniques. The laboratory also plastinated specimens for the California Museum of Science and Industry. The July 1993 issue of *OMNI* magazine featured an article on the laboratory.

Institutional Collaborations: Historical Collections is continuing to establish ties with professional medical associations. Alan Hawk represented the Museum at the 40th Annual Scientific Meeting of the American Association of Electrodiagnostic Medicine (AAEM). The meeting helped cement ties between the Museum and AAEM, which plans to recommend artifacts to be donated to the collection and to sponsor an exhibit. In addition to AAEM, the Museum has been designated the collecting unit for the National Association of Dental Laboratories, the Electron Microscopy Society of America, and the Public Health Service's Commissioned Officer Corps.

A Fabrikator's "Model M" iron lung, from the Museum's collection, was featured in an Appropriations Committee on Labor and Human Resources hearing held at the United States Senate in December. The subject of the hearing was a bill proposal by Senators Mark Hatfield and Thomas Harkin for the establishment of a federal trust support to fund biomedical research. Dr. Micozzi made a presentation before the committee explaining the device and the impact of the polio epidemic and the subsequent federally supported research that had made the device unnecessary.

The Historical Collections consulted with a number of professionals this year. Among these consultations were Stephanie Przybylek (Crawford County Historical Society, Meadville, Pa.), Linda Norbut Sults (Lincoln Home National Historical Site, Springfield, Ill.), John Murphy (Livingston County Historical Society, Geneseo, N.Y.), Peter de Clerq (Rijksmuseum voor de Geschiedenis van de Natuurwetenschappen en van de Geneeskunde, Lieden, Netherlands), Jeffery P. Cooper-Smith (United States Botanic Garden, Washington, D.C.), and Debra Berke (United States Department of the Interior Museum, Washington, D.C.).

PUBLIC PRESENTATIONS

March 2, 1993: Alexandria, Va., Friends of Alexandria Archeology, "Details from the Crypt: Understanding History through Human Skeletons," Paul S. Sledzik.

May 1, 1993: Washington, D.C., Smithsonian Institution Resident Associate Program, "Skeletons in the Closet," Allison Webb Willcox.

PUBLICATIONS

1. Fisher D, Holland M, Mitchell L, Sledzik P, Webb Willcox A, Wadhams M, Weedn V. Extraction, evaluation, and amplification of DNA from American Civil War bones. *J Forensic Sci.* 1993;38:60-68.

In addition, article by Alan Hawk, "Recreating the Knee, the History of Total Knee Arthroplasty, is in press.

OTIS HISTORICAL ARCHIVES

STAFF

Michael Rhode, Archivist
Joan Redding, Assistant Archivist

RESEARCH REQUESTS

The Otis Historical Archives (OHA) received approximately 160 requests for information this year in addition to Museum and AFIP staff requests, on-site researchers, or referrals to other institutions. Among the researchers who consulted OHA in 1993 were those from Marshall Troop Medical Clinic, Fort Dix, N.J.; the American College of Radiology; the University of Texas Southwestern Medical Center; History Factory; Vanity Fair; the University of Iowa Hospitals & Clinics Medical Museum; Atlanta History Center; the Society of Civil War Surgeons; Kansas State Historical Society; the University of Mississippi Medical Center; HSC Mercury, USAHSC, Fort Sam Houston, Texas; Inform Magazine; the University of California - Los Angeles; the National Library of Medicine; the James A. Garfield National Historic Site; Battlecreek Health System, Battlecreek, Mich.; National Memorial Day Concert; Medicine Group magazine; the National Portrait Gallery; the University of Missouri Family Medicine Department; SUNY Health Science Center; the University of Texas Southwestern Department of Pathology; PhotoSearch; Harvard University; the Kennedy Center; the University of Cincinnati; Stanford University; the University of Tennessee; the Smithsonian Institution; Einstein College of Medicine; Florida State University; Straight Ahead Pictures; the Office of the Surgeon General (Army); Sacramento Medical School; and The Wellcome Institute (London).

Several OHA photographs of soldiers wounded at the Battle of Gettysburg were used in the cable television show *Civil War Journal*; more are scheduled for use in the coming year. Other Civil War material was showcased at the Carter House (Franklin, Tenn.) exhibit "Unity of Purpose: An Exhibit of Civil War Medicine - North & South." Ron Kike (OAFME) provided photographic support for this exhibit.

ACQUISITIONS AND PROJECTS

The number of acquisitions at OHA increased this year. Dr. Frank Townsend, former Director of the AFIP and member of the Board of Governors donated more of his personal papers, which illustrate his role at the AFIP and in aerospace pathology. Dr. Kenton Hartman transferred records from the Jonestown tragedy, which will complement the anticipated transfer of the Institute's files from Records Repository. The National Naval Medical Center transferred autopsies dating between the 1930s and the 1960s. Veterinary collections increased with the acquisition of cosmetic research work done by John Henry Draize and the Lee collection of material

from the British Army Medical Corps diaries in World War I. An interesting donation of material including late 19th-century scrapbooks and reprints of Dr. John Hamilton, Surgeon General of the Marine Hospital Service (now the Public Health Service), was donated by his heirs with the assistance of Dr. C. Everett Koop. Several hundred videotapes were transferred from WRAMC-TV for inclusion in the audiovisual collection. The largest donation, from the estate of Charlotte Holt, a medical illustrator in Chicago, comprised almost all of

Holt's work in obstetrical and gynecological subjects. Finally, many small donations of books, posters, pamphlets, trade literature, and photographs (especially of AIDS material) were added to the overall collection.

The computerized inventory and finding aid project started in 1989 continued. Sha'Dana Jenkins, a DoD Science & Engineering Apprentice Program student, worked on a variety of projects, as did Wayne Johnson and Vanessa Scotland of the WRAMC Summer Youth Program. Gary Masters of the Casualty Care Research Center, USUHS, finished arranging the Kenneth Swan Collection of Vietnam-era trauma slides. These slides will now be used by the Borden Center for a textbook series. The combination shelf list and inventory of the archives continues and, it is hoped, will form the foundation for a published guide to the OHA collections.

OTHER ACTIVITIES

Mr. Rhode worked on the borrowing, cataloging and translating of posters and ephemera for the temporary exhibit "Global Responses: AIDS Posters and Printed Ephemera."

The AFIP Oral History Project, an initiative sponsored by Dr. Stocker, continued in 1993, with Dr. C. Stuart Kennedy of the Foreign Affairs Oral History Program at Georgetown University conducting the interviews. This year's participants were Drs. Davis, Enzinger, Hartman, Hyams, L. Johnson, Mendez, Meyers, Smith, H. Zimmerman, and L. Zimmerman and Mr. Neafie. Most of the interviews were filmed by WRAMC-TV and are available as transcripts or videotapes. Redding has arranged the material and created a finding aid, which is now available for research.

In February, Mr. Rhode attended the course "Preventive Care of Historic Photographic Prints and Negatives, Part 2" at the Getty Conservation Institute (Malibu, Calif.).

As a member of the Steering Committee of the DC Picture Group, Mr. Rhode organized meetings and maintained that organization's membership database.

As part of an ongoing commitment to catalog useful material, nonmedical films with historical value are being transferred to more appropriate government institutions. For example, the National Postal Museum, Smithsonian Institution, received *Night Mail*, a World War II film on delivering the mail by train in England.

DIVISION OF RESOURCE DEVELOPMENT

STAFF

Adrienne Noe, Ph.D., Curator, Human Developmental Anatomy Center
Elizabeth Lockett, BA, Museum Specialist
William F. Discher, BA, Museum Specialist
Mohamad Haleem, MS, Curator, Yakovlev Collection
Volunteer: Nancy Claypool

MISSION\ORGANIZATION

The division encompasses the Human Developmental Anatomy Center, including the Carnegie Collection, and the Yakolev Collection. Principal areas of investigation are embryology and neuropathology, with a focus on using high-resolution computer technologies that offer new insights into the division's holdings.

PROFESSIONAL ACTIVITIES

Opened in 1991, the Human Developmental Anatomy Center continues to expand its collections in order to organize and bring together several of the world's major human and comparative developmental collections with facilities to support research on holdings at the center and the Institute. While the Carnegie Human Embryology Collection remains the core of the holdings, several significant sets of serial sections have been added, including private collections from Europe and the United States. The staff of the University of California at Davis completed the transfer of several hundred serially sectioned primate embryos and reproductive system materials. In the year's most significant donation, the center was honored to acquire scientific and other scholarly materials from the estate of Elizabeth Ramsey, MD. Dr. Ramsey was a member of the Advisory Board of the Human Developmental Anatomy Center whose generous support initiated a legacy of research in the human trophoblast and placentology that the center will now be able to carry on in her memory.

The center continues to be an active research site. Seventy-eight researchers have used materials housed in the collections in projects ranging from 1 day to 2 month's duration. In scope, the subject matters included embryo studies in preparation for in utero surgical procedures, organogenesis and descriptive anatomical studies, and clinico-pharmaceutical subjects. Newly acquired research technologies included several items of photomicrographic equipment and numerous sophisticated electronic imaging devices. Images from the collections have appeared in numerous publications, dozens of presentations about emerging imaging modalities, and multiple now-standard electronic media applications.

The Human Developmental Anatomy Center is completing a contract activity with three institutes of the National Institutes of Health to use serially sectioned embryos for three-dimensional, computer-based reconstructions with identified organ systems for distribution to a number of agencies for evaluation. Two full-time staff members were added in May to accomplish this start-up program sponsored jointly by the National Institute of Child Health and Development, the Office for Research in Women's Health, and the National Center for Research Resources. In the course of this project, staff has substantially completed an automated database of collections materials for use in applying for research resource center-type grants.

The activity continues to serve as a springboard for the investigation of super-computer-based, image-reconstruction processes and for cooperation with institutions using wideband-width image transmission technologies. To this end, the center is developing close ties with such institutions as the center for Knowledge Management at the University of California, San Francisco and the Center for In-Vivo Microscopy at the Duke University Medical Center, the National Institutes of Health, and other national anatomical imaging projects. The center also participated in the first magnetic resonance microscopy project involving a full human embryo. It is anticipated that the use of materials from the center will be instrumental in investigating the efficacy and potential of this evolving technology. Based on these experiences, the staff is actively involved in initiatives to study Institute-wide scientific computing agendas and in developing distributable image data sets. In addition, staff codirected the annual AFIP Telemedicine Seminars, discussing the center and its integration with new opportunities afforded by telepathology and telemedicine.

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April 14, 1993: Toronto, Ontario, Paleopathology Association Annual Meeting, "Skeletal Evidence for Tuberculosis and Vampirism in 18th and 19th century New England," PS Sledzik, AW Willcox, and N Bellantoni.

April 22, 1993: Windsor, Ontario, Department of Biology, University of Windsor, "The Mummies Speak: Disease in Ancient Egypt," Allison Webb Willcox.

May 1, 1993: Washington, D.C., Smithsonian Institution Resident Associate Program, "Skeletons in the Closet," Allison Webb Willcox.

August 28, 1993: Baltimore, Md., Association of State and Territorial Public Health Laboratory Directors, First National Conference on Laboratory Aspects of Tuberculosis, "Tuberculosis in the Ancient World." Allison Webb Willcox.

October 9, 1993: Transabdominal Testicular Descent Revisited. Presented at the Interim Meeting of the Society for Pediatric Pathology, A. Noe.

October 29-30, 1993: Washington, D.C., National Museum of Health and Medicine, Armed Forces Institute of Pathology, Resident Associate Program, Smithsonian Institution, "Vampires." Paul S. Sledzik.

November 7, 1993: A National Neuroanatomy Collection. J. B. Johnston Club of the Society for Neuroscience, 7 November 1993, A. Noe.

November 17, 1993: Washington, D.C., American Anthropological Association Annual Meeting, "Physical Anthropology in Egypt: A Critical Look at the Past and Future," Allison Webb Willcox.

February 19, 1993: Mellen PF, RK Rhoby, VW Weedn, PS Sledzik, and MS Micozzi. DNA Analysis of Spontaneously Preserved Tissues: Adipocere and Mummification. American

Academy of Forensic Sciences, Boston.

April 15, 1993: PS Sledzik, DW Owsley, HM Miller, TB Riordan, and AW Willcox. The St. Mary's City Lead Coffin Project. Paleopathology Association, Toronto.

Summary of Museum Staff Publications, 1993

1. Fisher D, Holland M, Mitchell L, Sledzik P, Webb Willcox A, Wadhams M, Weedn V. Extraction, evaluation, and amplification of DNA from American Civil War bones. *J Forensic Sci.* 1993;38:60-68.
2. Goler R. Chicago surgical instrument makers, 1855-1899: a commentary on sources. *Caduceus.* 1993;9:99-106.
3. Goler R, Riley C. A directory of Chicago surgical instrument makers, 1855-1899. *Caduceus.* 1993;9:107-110.
4. Mellen DF, Roby RK, Weedn VW, Sledzik PS, Micozzi MS. DNA analysis of spontaneously preserved tissues: adipocere and mummification. American Academy of Forensic Sciences Abstracts, 45th Annual Meeting, Boston, Mass; 1993:25.
5. Mellen DF, Lowry M, Micozzi MS. Experimental observations on adipocere formation. *J Forensic Sci.* 1993;38:91-93.
6. Micozzi M, Weedn VW, Fisher D. Testing Lincoln's DNA. American Academy of Forensic Sciences Abstracts, 45th Annual Meeting, Boston, Mass; 1993:15.
7. Micozzi MS. Il Caso del Presidente Abramo Lincoln. *Kos: Rivista di scienza e etica.* 1993;92:21-29.
8. Micozzi MS. Functional consequences from varying patterns of growth and maturation during adolescence. *Horm Res.* 1993;39(suppl 3):49-58.
9. Micozzi M.S. Evaluation of carotenoid intake. In: Packer L, ed. *Carotenoids: Methods in Enzymology.* Orlando, Fla: Academic Press; 1993;214:17-21.
10. Micozzi MS. Postmortem change. In: Wecht C, ed. *Handbook of Forensic Sciences.* New York, NY: Matthew Bender; 1993.
11. Micozzi MS. National health care: medicine in Germany, 1918-1945. In: Sennholz HF, ed. *Politicized Medicine.* Irvington-on-Hudson, NY: Foundation for Economic Education Inc; 1993:94-101.
12. Micozzi MS. Cancer Screening. *Am J Hum Biol.* 1993;5(1):119. Book Review.
13. Micozzi MS. Medicine Betrayed: The Participation of Doctors in Human Rights Abuses. *N Engl J Med.* 1993;328:1430-1431. Book Review.
14. Micozzi MS. Forensic anthropology. *McGraw-Hill Yearbook of Science and Technology.* New York, NY: McGraw-Hill; 1993:148-149.
15. Micozzi MS. Plant flavonoids: can they heal us? *Executive Health's Good Health Report.* 1993;29:4.
16. Micozzi MS. The nation's health and the patient's health: medicine in Germany, 1918-1945. *The Freeman: Ideas on Liberty.* 1993;43(11):416-429.
17. Sledzik PS, Willcox A, Micozzi MS. Autopsied, embalmed, and preserved human remains: distinguishing features in forensic and historic contexts. American Academy of Forensic Sciences Abstracts, 45th Annual Meeting, Boston, Mass; 1993:34.

In addition, one article is in press and another is in preparation.